It is said that there are four ways to truth. One is the road of Science, one of Art, one of Philosophy and one is the road of Religion. Truth is like at the center of a cross, at the crossroads as it were, and each of the four roads leads to it. The closer the roads come together at the center the more alike they become until finally at the crossing point they do become one. But what do we really know about these four roads and what do we know about their differences so that, when we can distinguish between them, we may finally at the end of the road say in what respect they are alike.

In general we know that science and philosophy have primarily something to do with our thinking and that art and religion belong more or less to our feelings. But most of the time we have an eating, drinking and sleeping life and a few hours are left over for pursuits on any one of the four mentioned roads. And if that were all the time we spent we would not easily get to the truth.

It is perhaps not a question so much to get to the center, to truth itself, and even if we did we might not know that we had arrived. We like to think that we are on one of the roads and pointing towards the truth. It is difficult to know how much progress we make. It seems to go by spurts. For some periods in our life we are quite intense about this. We work day and night as it were, we read it and talk it and live it. And sometimes we get a little closer to understanding and it makes us happy. At other times we have lost interest, sometimes for years, and nothing special happens to make us remember. Or we may try a different road; maybe we switch from philosophy to religion or from science to philosophy. Or we try to combine the interest of different directions and we try to find in how far science and religion can go together and where investigations of one oppose

the dogma of the other. Sometimes we have to believe in hearsay, we have to assume that it is true that Newton, who was a religious man, could believe in the compatibility of religion and science, and on the other hand we know of the constant battles of the mind and otherwise during the Middle Ages and even at the present time.

It might be a valuable thing to contemplate these thoughts a little. For instance does science get anywhere? Let me quote here a few paragraphs:

"He said further:

'Take myself as an example. I am not an ordinary learned man. I am known by all Babylon and by people of many other towns as an exceedingly learned and wise man. I finished the course of study higher than which has never yet existed on the earth and which it is almost impossible ever will exist again.'"

Science teaches objectivity.

Philosophy teaches understanding.

Religion teaches reverence.

Art teaches expression.

The search of science is very much like hunting for treasure. You have a hunch that there is a treasure somewhere, something desirable and you start out looking for it. You are not immediately concerned with the question of what to do with it when you have found this treasure. It may be that it is very valuable, that it can be used for many things, that you can make a great deal of money after you have found it; you could sell it, you could apply it, you might get royalties on it for life. But all this we are not now considering because you are a "pure" scientist, not an "applied" one. The pure scientist hunts for the fun of it. He is impelled to do so but he enjoys it.

At least in the beginning it is fun because everything is new and there are lots of ideas. You have a great deal of energy and nothing

is too much. So you work. So do all scientists start to work when they are young. They are after a discovery in their own field. Maybe the motive is to distinguish themselves and reap admiration from their colleagues. Perhaps it adds to their glory to have their articles or their books published, to appear before large audiences and discuss the latest in science and the contributions to it by the humble speaker.

But we will assume that the pure scientist is free from this vanity. He does not seek himself, he is searching for the relation of things, for their values, for a better understanding or for a more inclusive theory. He wants to establish a law, based on observation, and then test the validity of such a law to see if it fits all cases. It is at first a working hypothesis, it answers many questions as of that day and even if there are a few which do not exactly seem to correspond it is a hypothesis which can be made to work. But at any time a new set of ideas comes to light the hypothesis has to be changed because it is not, as yet, a fundamental law. These new facts are really a disappointment although you must look at them as a new discovery and you cannot neglect them. You may not believe in them at first, but since the rules are given of how to arrive at the same facts you start to find out for yourself if these facts are really so. You find out that they are and the interpretation seems probable and plausible. And you have to change your mind. This is the first thing you have to learn when you become a scientist: integrity. When all the facts are in and there is only one conclusion to be drawn you have to agree, regardless of what you have thought or advocated before. And in the end you welcome this advance, when you onee become convinced.

But what is necessary to become convinced? It is more than an open mind that is needed and more than plain honesty. The second

step to learn is objectivity. You should be free from prejudices, you should be able to judge facts as they are, not as you would wish them to be. And this is very difficult.

You have theories about how this or that has come about. You have discovered various things, new things, new combinations, new laws or rules. When this is added to that under these circumstances then - - - and you can predict what will happen. And many days it does happen exactly as you have predicted. And then one day it doesn't. There is nothing wrong with it, all conditions were the same, your starting point, the time, your calculations, and still the result is different. You don't believe it. You must have made a mistake and so you do it again, very careful this time, checking all conditions you know, all the steps you must take, as accurately as you can. And again, the result is different from what you expect and what you wished. Because you have wished that the results would confirm more and more the foundations upon which your theory was built. You are disappointed. You start to doubt yourself and again you double your efforts. Was it luck in the beginning which led you on, or chance, or a temporary insight? You do not know. All you know is that the result is 99 and it should have been 100. No personal interpretation will enable you to change 99 to 100. And then what will you do?

At first you fight. You were happy with your theory and now you cannot believe in it any longer. It was part of you and now you have to give it up. This hurts and you object and you start looking for a compromise.

Are all scientists this way? Are they honest with themselves and do they remain honest when pressure is brought to bear on them? This conviction that things must be so and cannot be otherwise, regardless of what other people say, regardless of what they do to you, your colleagues, your friends, your superiors. Have you the strength

of your conviction, of your own experience? This is what science can teach us in its search for truth, this determination not to let go, but only after one is convinced that one has integrity and objectivity so that one is willing to die for one's convictions.

This has been the road of science during the past centuries. Scientists have died for their beliefs, their ideas were attacked, torn down, erased and then again they came again with new force.

And the result has been growth and progress and better understanding. But here again is the great difficulty and the sad result: we have taken these accomplishments of science and appropriated them as our own. We have done as if we had fought for them. We have taken these results as a matter of course. We say they are our own because they are available to us but we have not worked for them. Someone else worked and perhaps died for them and the only progress that counts is for the man who has worked.

There is of course a great difference between different civilizations, either historically in time of development or geographically at the present time. We have what is called cultural inheritance. Compared to what we were several centuries ago or compared to what we know about so called primitive or savage societies, we have gone a long way. We may not have developed in all directions of possible human development, we may be a little lobsided, that is, we may have gone faster in industrial development than in a sociological direction, but we have nevertheless grown and no one will deny it. We point to bathtubs, to subways and telephones, cars and television. And we are very proud of such achievements.

The calamity for the human race consists in this, that all this progress becomes our property without payment. This is our inheritance of culture and we do not even pay an inheritance tax. We accept it as a matter of course and we call it our birthright. And because we belong

to the human race and we are not animals, we can accept it as results without having to start over and over again with each new generation. And that is the reason we can keep on building, as a race, and we can progress.

We live as in air. The inheritance is free like air and we keep on breathing this culture, using it, digesting it. And there is nothing wrong with it as long as we want to remain human beings, just human beings, eating, drinking and sleeping. This is what the results of science have brought us, this is all and nothing else. And as long as this satisfies us we can be gratified.

The road of Art differs from the road of Science. We leave a field which is predominantly intellectual and we substitute our feelings in its place. But this is not the only difference. In science we consider things outside of ourselves and we measure and weigh and relate. In art there is something inside of us which needs expression. Sometimes we say it cries in us for expression. If we couldn't express it, this feeling in us, we would die. Yes, perhaps we might die.

These feelings of art are again twofold; we are affected by art, as we say, or we have in ourselves as we say the urge for creation.

Perhaps these two feelings go hand in hand. Perhaps to the extent that we can express something we have also a feeling for it. Or perhaps to the extent that we are impressed by some example of art, we feel that we could also express it. Or that we would be able to create something if only we had time, opportunity, leisure, money or whatever might be the excuse. When we are young we have a possibility of art expression, all of us. And then somehow it gets lost. We can draw, we can make a little music, we can act, we can make some statues out of clay and we can write poems. But then something happens. We become educated. First we lose the faculty of being objective about ourselves. Instead of saying that John or Mary can do this, we start saying, "I

can do this", or "I cannot do this". And after this education takes hold very quickly and we feel that we can learn, that we can draw, or that we can act. It is no longer that something draws through us or that it acts in us. And with this, as we start to acquire more and more things we can do or learn, somehow we have no more time to draw or to paint or to make music or to write.

From an active performer we have become a passive onlooker, a being who appreciates but does not do any longer. We have fallen into a category of art lovers and at any time in later years we like to mention this, that we do not make or play music but we love to hear it. We go to the theatre because we want to see Hamlet very much. We go to exhibitions because we understand Branensi so well. And how we are flattered to be able to read aloud to some friends who want to listen to our melodious voice, with such depth and with such expression.

We admit to ourselves that we have gone a long way from the childish pictures we drew and our own poems - we are a little ashamed of them. And still such attempts were better than our passive enjoyment in later years, when we are so called grown up.

But suppose for a moment that we are artistic, I mean that we can find an expression in some form for certain feelings we have, that we have our art, that we have a craft or that we are artizans, an honest workman and that we can make and create things. We have worked a long time to acquire a technique, a special style or as we say, originality. Let's say we are a great musician and we play. On how far are we dependent on moods of others? What do we do with Beethoven or Bach or the Moderns? At best, and we will assume that people pay money to hear us and that we have a name, at best we play again and again what some other person has felt before and written down, and we become interpreters of such feelings. Moreover we seem to need an audience. Even if we have

been alone, practising perhaps, and it has gone very well, we like to talk about it to our friends:"Oh, if only you could have heard me play this morning!" We need this stimulus from the outside and we need this admiration. And at the same time we borrow. We use someone else's life and we make it our own, at best we are imitators. It is the same with acting, hundred times in succession each evening and matinees, the same thing. And we repeat until it is a habit, until we play Hamlet as Hamlet never was, trying to imitate a life we have never experienced.

Perhaps with writing it is a little better. But why would it be? If we could write from our heart, from feelings we have, and then express them in such words that everybody can understand and receive in turn such impressions that also their feelings feel. But we assemble words and terms and puns and sentences trying to clarify ourselves and even if we reach moments of inner bliss we are still at a loss to produce these states at will.

Would painting be better? Drawing pictures and lines in a certain way and let our imagination run wild, hoping that someone else will understand these scribbles, these colours thrown together as we feel them or see them?

Do we really accomplish what we are after? Do we improve on Nature, not just imitation, but again originality in line so that the totality of it expresses an idea which will be acknowledged by all? Because what is the good if we paint in Greek and no one understands Greek? Isn't practically all art building castles on sand and as the tide comes it is swept away without a trace. How can we escape this dilemma, how can we create immortality of art?

Perhaps in the same way as a new life is created when one is born, this process of creation, this art, can be actualized again by the creation of a new life in ourselves of which the vibrations are of a

different scale.

All this however leads to our third consideration, the path of philosophy, one of the four paths to truth. How charming is divine philosophy! What is philosophy really? The word means philos - sophia, that is the love of wisdom from the Greek word philos which is loving, or having a fondness for - as in so many words we know: philology - love of logos, words, or even the word Phillip - that is lover of Hippo - of horses. And then the word sophia, wisdom, or in a larger sense including logic, ethics, aesthetics, metaphysics and the theory of knowledge. Perhaps as a shorter description we should use the science which investigates the facts and principles of reality and of human nature and conduct, or to say it in another way, the interest to discover the meaning and aim of existence. This is philosophy and as such it is a rather large order. When we apply this to human beings it follows that each person has his own philosophy, with some more pronounced than others, but definitely quite personal. And if we could add all these philosophies and divide it by the number of people we would have one general philosophy. On the face of it this is naturally absurd.

There is a line in a recent play which is worthwhile. The actor says that he studied a variety of philosophies but they were all too difficult so he finally invented his own. And this is probably true in all our cases. We say of so and so that he has a good philosophy, a good way of thinking or behavior or that someone else takes things quite philosophically. What do we mean by that?

We read many books and what we can retain from them, what we like or what we remember or when we agree or disagree becomes part of us. When we sit and think and philosophize about these ideas we gradually form in ourselves a mode of behavior, a pattern of our life.

It is mostly in our head, We think about how we ought to be or

to a certain extent we believe that we are such and such. We think about the meaning of words or the meaning of ideas or the meaning of experience. We start to valuate them in our mind and we say that some thoughts are deeper than others or that one idea weighs more than another. We then classify such books as valuable for us or others which have no meaning, they have nothing to say and they don't contain any worthwhile thought. This becomes our philosophy, the ideas we want to live with, the persons we want as friends, the experiences which seem to be indicative for us as representing a higher life. It is not that we are particularly stirred by them. We rather enjoy reading and thinking about them and they help us in our daydreaming. We read a little about Plato and Socrates and then we are reminded that there was something in the old Hindu philosophies, so we read some Vedanta and the Bhagavat Gita and perhaps even go so far as the Mahabharata, or the Chinese, Lao Tze. We delve a little into Spinoza, Kant, Leibnitz, Bergson, Schopenhauer, Nietsche. Then we think again about Zoroaster and we look him up. Someone mentions Hegel, Hartman, Fichte and perhaps Kant. We struggle through the 'Kritik der reinen Verunft', 'Das Ding an Sich'. We go back to Goethe and read Faust for a little while, the first part of which we like, the second part becomes much too much involved. What we want does not seem to be there and we continue our search for other philosophers and their way of thinking.

And gradually we start to believe that those words are our own words, that this thinking is our own thinking. We take one gram of Descartes, one gram of Berkeley or Locke and a little sprinkling of Russell and a pinch of salt from Tertium Organum and we mix it well and stir it up and there, presto, is our philosophy of life.

And the next moment we come across Alexis Carrell and we agree with him quite wholeheartedly until another best seller takes his place and so on and so on.